

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Anna Belle Williams; Cecilia A. Trevino; Frank R. Walker, Jr.; Guy A. Scheppe; David W. Bulger; Jonathan B. Safran; Patrick W. Lynch

Assignee: Dell Products, L.P.

Title: Continuity Of Supply Risk And Cost Management Tool

Serial No.: 09/896,992 Filing Date: July 2, 2001

Examiner: Beth Van Doren Group Art Unit: 3623

Docket No.: DC-02825 Customer No.: 33438

Austin, Texas  
February 29, 2008

*Electronically Filed*

**PRE-APPEAL BRIEF REQUEST FOR REVIEW  
AND STATEMENT OF REASONS**

Sir:

Applicant requests review of the Final Rejection in the above-identified application. No amendments are being filed with the request. This request is being filed with a Notice of Appeal. The following sets forth a succinct, concise, and focused set of arguments for which the review is being requested.

**CLAIM STATUS**

Claims 2-16 and 48 are pending in the application. Claims 2-16 and 48 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Feldman in view of Hendrick, et al. "Production/Operations Management," Richard D. Irwin, Inc., 1985, Chapter 11, pages 226-244 (Hendrick).

**REMARKS**

**Claims 2-16 are allowable under 35 U.S.C. § 103(a) over Feldman in view of Hendrick, et al. "Production/Operations Management," Richard D. Irwin, Inc., 1985, Chapter 11, pages 226-244 (Hendrick).**

The present invention generally relates to identifying potential risk due to potential disruptions in material supply to a manufacturing facility. One aspect of the invention is the appreciation that disruptions in material supply can occur from sub-components that are

combined to provide components. Identifying risks associated with these sub-components can enable determining potential disruptions in material supply that would otherwise not be identified. So for example, if there were a potential disruption due to resistors that are needed to fabricate a printed circuit board, where the printed circuit board is the component being supplied to a manufacturing facility, to risk associated with the resistor would affect supply of the printed circuit board.

Feldman relates to managing supply chain risk. Feldman discloses identify which components are most critical to the assembly of a final product, in terms of placing the largest amount of revenue or profit at risk. The impact on profit and revenue of the failure to effectively deliver these critical products is then quantified. The revenue and profit distribution from the supply chain is characterized given a projected distribution supply uncertainty, taking into consideration that input products are only useful if all of the BOM components are present. The revenue at risk is then determined. From the set of possible final products that can be produced, the portfolio of final products with the best risk-return characteristics are determined.

When discussing Feldman, the Examiner set forth:

Feldman et al. does not expressly disclose innovation risks or determining a set of sub-components for the set of components and combining the set of components and the set of sub-components.

Hendrick et al. discloses:

determining a set of sub-components for the set of components (See pages 228-9 and page 231, figure 11-3 wherein subcomponents and subassemblies are determined); and

combining the set of components and the set of sub-components (see page 230-232, which discuss building a bill of materials and product structure trees by combining this information; (Office action dated July 25, 2007, Page 7.)

Hendrick relates to material requirements planning (MRP) in the context of production management. Hendrick discloses bills of materials and product structure trees (see e.g., Hendrick p. 230, 231 and Figure 11-3). Hendrick further discloses requirements of a data base that is used for material requirements planning. However, neither Feldman nor Hendrick disclose or suggest identifying potential risk due to potential disruptions in material supply of components and sub-components, as required by claims 2 and 48.

In the “Response to Arguments” portion of the Final Office Action, the Examiner set forth:

Applicant’s arguments with regards to the rejections based on Feldman et al. (U.S. 2002/0188496) in view of Hendrick et al. (“Production/Operations Management”) have been fully considered, but they are not persuasive. In the remarks, Applicant’s argue that neither Feldman et al. nor Hendrick et al. teach or suggest identifying potential risk due to potential disruptions in material supply of components and sub-components, the potential risks including risks associated with supplier power risks, geographical risks, capital cycle risks, and innovation risks (Final Office Action dated January 8, 2008, Page 2).

In response to this argument, examiner respectfully disagrees. Feldman et al. is specifically directed to identifying and monitoring supply chain risk. The supply chain supplies material, such as components and products made up of components (see title, abstract, paragraphs 10-11 and 43). Events that may occur and may disrupt the supply chain (i.e. risks) are identified and monitored to see affect on the supply chain. See paragraphs 7, 14, 43, 45, 48, 86, and 89, which specifically disclose risks associated with geography (location, earthquakes, fires, natural disasters, etc.) and political issues (see political risk insurance, wars, political turmoil, strikes), as well as capital risks (credit risks, etc.) supplier power (labor availability, supply on hand, etc.). See also paragraphs 11-12 and 38. Feldman et al. does not expressly disclose innovation risk, but examiner took official notice that innovation risk was old and well known, which has not been challenged (see non-final action, response to arguments, dated 7/25/07) (Final Office Action dated January 8, 2008, Pages 2-3).

Further, Hendrick et al. was relied upon to teach a set of sub-components for the set of components. See pages 228-9 and page 231, figure 11-3, and page 232, which discuss building a bill of materials and product structure trees by combining this information, wherein subcomponents and subassemblies are determined Hendrick et al. and Feldman et al. are analogous (both disclose components parts being supplied by a supplier that supply the component to the manufacturer, as well as supplier, geopolitical, and capital risks associated with this supplying. Feldman et al. further discloses bill of materials and identifying the components that are assembled to produce a final product. Hendrick et al. specifically discloses determining assembly and subassembly parts, generating bill of materials, and the problems that can possibly occur when procuring different parts from different outside vendors, such as the parts coming too early, too late, etc. Therefore, Hendrick et al. and Feldman et al. do specifically meet the limitation as claimed (Final Office Action dated January 8, 2008, Page 3).

However, it is respectfully submitted that merely combining a system which manages supply chain risk by identifying which components are most critical to the assembly of a final product, in terms of placing the largest amount of revenue or profit at risk, as taught by Feldman, with a teaching of subcomponents, as taught by Hendrick, does not disclose or suggest identifying potential risk due to potential disruptions in material supply of a component from a set of components and the set of sub-components, as required by claims 2 and 48.

More specifically, Feldman and Hendrick, taken alone or in combination, do not teach or suggest a computer implemented method of identifying potential risk due to potential disruptions in material supply to a manufacturing facility where the method includes identifying *potential risk* due to *potential disruptions in material supply* of a component from the set components and *the set of sub-components* much less where the potential risk due to potential disruptions in continuity of material supply includes *risks associated with geopolitical risk, capital cycle risk and innovation risk*, all as required by claim 2. Accordingly, claim 2 is allowable over Feldman and Hendrick. Claims 3 - 16 depend from claim 2 and are allowable for at least this reason.

Feldman and Hendrick, taken alone or in combination, do not teach or suggest a computer implemented method of identifying potential risk, the risk due to potential disruptions in material supply to a manufacturing facility where the method includes *identifying respective sets of sub-components*, the respective sets of sub-components being combined to provide a corresponding component of the set of components, each of the respective sets of sub-components comprising sub-components, and identifying potential risk due to potential disruptions in continuity of material supply *of any components from the set components and any sub-components of the respective sets of sub-components*, much less where the potential risk due to potential disruptions in continuity of material supply includes *risks associated with supplier power risk, geopolitical risk, capital cycle risk and innovation risk*, all as required by new claim 48. Accordingly, claim 48 is allowable over Feldman and Hendrick.

In view of the arguments set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, please telephone the undersigned.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on February 29, 2008.

/Stephen A. Terrile/

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Respectfully submitted,

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